

Crabs and Other Crustaceans

Biological Classification Series

Grade Levels:

Grades 5-10

Subject Areas:

Science

Life Sciences

Biology

Synopsis:

Live-action film footage introduces the characteristics of crustaceans with a focus on decapods, ten-legged crustaceans such as crabs and shrimps. Films how female crabs and shrimp carry their eggs, how the larvae hatches, and how they grow to adult size by shedding. Emphasizes the characteristic cephalothorax. Species portrayed include velvet crabs, brown crabs, king crabs and hermit crabs and the freshwater species, the crayfish. Explains why the common barnacle is a crustacean and notes that sand fleas on the beach are crustaceans too.

Learning Objectives: Students will:

Understand that crustaceans have shells and jointed limbs.

Understand that crustaceans grow by shedding their shells.

Understand the characteristics of decapods and their proliferation throughout the world.

Understand how new generations of shrimps and crabs develop.

Vocabulary:

antennas, scavenger, crustacean, jointed limbs, thorax, cephalothorax, decapod, abdomen, camouflage, foraging, appendages, barnacle, calcareous, tentacles, modified, sow bugs, woodlice

Pre-Viewing Discussion:

What physical characteristics distinguish members of the crab family?

What size is the smallest crab? What size is the largest?

Do you like to eat crab? Why or why not?

How are shrimp different from crabs?

What are barnacles? Do you think they are they related to crabs or shrimp?

Post-Viewing Discussion:

What is a cephalothorax? What crustacean body parts does it contain?

What do the shrimp and the green crab have in common? How are they different? Why are they called decapods?

Where do crabs and shrimp carry their eggs? How do they protect the eggs?

How do crustaceans grow?

What is the difference between the body of a shrimp and that of a hermit crab?

What decapod lives in fresh water?

Why are barnacles, sow bugs and sand fleas crustaceans?

Further Activities:

Find out which of the five major classification groups crabs and other crustaceans are in (i.e. Kingdom, Phylum, Class, Order, Family). Chart the relationships of animals in the largest to the smallest taxonomic groups around them. What characteristics make this group similar to and different from the other groups to which they are related? Then, pick one species from the program and determine its genus and species name, writing them in the proper scientific terminology. Find out why the genus and species name is written the way it is.

Find out more about the habits of hermit crabs and how they are able to survive by taking shelter in empty shells. Also trace their distribution throughout the world.

Investigate crab fisheries to determine the species that end up on our dinner tables and the characteristics that make them popular seafood. Ask the same questions of the trade in crayfish.

Discover how barnacles or sand fleas conform to and differ from the characteristics of typical crustaceans.

Investigate the crustaceans that can be found in a typical backyard garden where you live. Discover their scientific names and distinguishing characteristics.

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